

Remarks

By the present communication, Claims 10, 33-36 have been amended to define Applicant's invention with greater particularity. No new matter is introduced as the claimed subject matter is fully supported by the specification and claims as originally filed.

Entry of the claim amendments submitted herewith is submitted to be proper as the amendments place the present claims in condition for allowance, or at a minimum, in better condition for appeal. Moreover, no more claims are presented for prosecution at this time than have previously been presented for prosecution. Accordingly, entry of the amendments submitted herewith is respectfully requested.

Upon entry of the present amendment, Claims 10 and 33-39 will be pending and under active prosecution. The **Listing of Claims** with appropriate status identifiers begins on page 2 of this communication.

Claim Rejection under 35 U.S.C. § 112, first paragraph: Claims 36-39.

The rejection of Claims 36-39 under 35 U.S.C. § 112, first paragraph, for alleged lack of enablement is respectfully traversed. As acknowledged by the Examiner (Office Action, page 2, lines 13-19), Claims 36-39 are ...

enabling for isolated bacterium selected from the group consisting of *C. sporogenes*, avirulent *C. beijerinckii* and attenuated, non-pathogenic *S. typhimurium*, transfected with a vector comprising a recombinant nucleic acid sequence encoding thiaminase I from *N. gruberi* as set forth in SEQ ID NO:3, wherein the recombinant nucleic acid sequence is operably linked to a promoter.

Accordingly, Claim 33, as amended, requires each of the elements indicated by the Examiner as being enabled. Specifically, Claim 33 provides a defined bacterium transfected with a defined vector, which vector comprises a defined nucleic acid encoding a defined protein, and

which nucleic acid is operably linked to a promoter. Accordingly, Applicants respectfully request reconsideration and withdrawal of the present rejection.

Claim Rejection under 35 U.S.C. § 112, first paragraph, written description: Claims 34-35

The rejection of Claims 34-35 under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement, is respectfully traversed. Claim 34, as amended, requires a purified, enriched, or isolated nucleic acid sequence which is at least 90% identical to a portion of the *N. gruberi* thiaminase sequence (SEQ ID NO. 3) at least 200 nucleotides in length, support for which is found in the specification at, e.g., page 11, lines 21-25.

The Examiner asserts (Office Action, page 7, line 28 to page 8, line 2) that “there is no specific description provided by the specification for any other sequences with specific percentage identity to specific nucleotides of SEQ ID NO:3 which, when constructed and used as claimed, would encode thiaminase I from *N. gruberi*, and be capable of inducing apoptosis in vertebrate cells (*emphasis added*).”

Applicants respectfully submit that the Examiner has argued elements which are not present in the claims; e.g., “when constructed and used as claimed” and “capable of inducing apoptosis” (*Id.*) Indeed, Claims 34-35 relate to compositions of matter (i.e., purified, enriched, or isolated nucleic acid sequences) with homology to thiaminase I from *N. gruberi* (SEQ ID NO:3) discovered by Applicants, the construction of which is known to those of ordinary skill in the art. Similarly, Claim 35, dependent on Claim 34, is directed to a composition of matter with defined identity with respect to the sequence of thiaminase I from *N. gruberi* (SEQ ID NO:1). Accordingly, reconsideration and withdrawal of the present rejection is respectfully requested.

Claim Rejection under 35 U.S.C. § 112, second paragraph: Claims 10 and 33

The rejection of Claims 10 and 33 under 35 U.S.C. § 112, second paragraph, for alleged indefiniteness is respectfully traversed. Claims 10 and 33, as amended, clarify that the

recombinant nucleic acid sequence encoding thiaminase I from *N. gruberi* of the invention is as set forth in SEQ ID NO:3. Accordingly, Applicants respectfully request reconsideration and withdrawal of the present rejection.

Conclusion

Applicants believe that the present application is now in condition for allowance. Reconsideration and favorable action are respectfully requested. In the event that any matters remain to be resolved in view of this communication, the Examiner is encouraged to call the undersigned so that a prompt disposition of this application can be achieved.

No additional fee is believed due with the present submission. However, the Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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